REMARKS

Claims 1, 4-16, 18-24 and 26-30 remain pending in the application.

The Applicants respectfully request the Examiner to reconsider earlier rejections in light of the following remarks. No new issues are raised nor is further search required as a result of the changes made herein. Entry of the Amendment is respectfully requested.

Claims 1, 4, 5 and 11-13

In the Office Action, claims 1, 4, 5 and 11-13 were rejected under 35 USC 103(a) as allegedly being obvious over U.S. Pat. No. 6,668,028 to Koslov et al. ("Koslov") in view of U.S. Pat. No. 5,974,152 to Fujinami ("Fujinami"). The Applicants respectfully traverse the rejection.

Claims 1, 4, 5 and 11-13 recite an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a plurality of filter transfer functions for the programmable infinite impulse response filter, and a finite impulse response filter.

Koslov appears to disclose a method and apparatus for implementing digital resampling circuits which create one or more bitstreams from an input bitstream (Abstract). The resampling circuit utilizes an all-pass IIR filter with an adjustable coefficient to effect variable delays (Koslov, col. 2, lines 41-44). The variable delay IIR filter may be implemented in two stages, e.g., the first stage comprising multiple fixed delay IIR filters, and a second stage comprising an IIR filter with a finely adjustable variable delay structure (Koslov, col. 2, lines 44-52). The utilized all pass filters have a single transfer function (col. 4, line 43-49).

Koslov discloses use of IIR filters that only have a **single** transfer function to select from. Moreover, Koslov fails to disclose or suggest use of a finite impulse response filter. Thus, Koslov fails to disclose or suggest an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a **plurality** of infinite impulse response filter **transfer functions** for the programmable infinite impulse response filter, and a finite impulse response filter, as recited by claims 1, 4, 5 and 11-13.

The Office Action acknowledges that Koslov fails to disclose a finite impulse response filter for receiving an output of an infinite impulse response as an input (Office Action, page 3). The Office Action relies on Fujinami to allegedly make up for the deficiencies in Koslov to arrive at the claimed invention. The Applicants respectfully disagree.

Fujinami appears to disclose a sound image localization control device that reproduces an acoustic signal on a basis of a plurality of simulated delay times and a plurality of simulated filtering characteristics (Abstract). A plurality of infinite response filter outputs are summed and input to a finite impulse response filter (Fujinami, Fig. 7).

Fujinami discloses a finite impulse response filter receiving an output from an infinite response filter. However, Fujinami **fails** to disclose or suggest that the infinite response filter has **any** associated infinite impulse response filter transfer function, much less a **plurality** of infinite impulse response filter transfer functions to select from, as recited by claims 1, 4, 5 and 11-13.

Neither Koslov nor Fujinami, either alone or in combination, disclose, teach or suggest use of a **plurality** of filter transfer functions for the programmable infinite impulse response filter to select from, much less an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a plurality of filter transfer functions for the programmable infinite impulse response filter, and a finite impulse response filter, as recited by claims 1, 4, 5 and 11-13.

Moreover, even if Fujinami disclosed a plurality of filter transfer functions for a programmable infinite impulse response filter, which as discussed above Fujinami fails to do, there is no suggestion to combine Koslov and Fujinami to arrive at the claimed invention. "Teachings of references can be combined only if there is some suggestion or incentive to do so." In re Fine, 5 USPQ2d 1596,1600 (Fed. Cir. 1988) (quoting ACS Hosp. Sys. v. Montefiore Hosp., 221 USPQ 929, 933 (Fed. Cir. 1984)) (emphasis in original). Neither Koslov nor Fujinami, nor any of the cited prior art, disclose or suggest why one of

ordinary skill in the art would have been motivated to modify Koslov in any way, much less to arrive at the claimed invention.

For at least all the above reasons, claims 1, 4, 5 and 11-13 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Claims 6-10 over Koslov in view of Fujinami and Boyd

Claims 6-10 were rejected under 35 USC 103(a) as allegedly being obvious over Koslov in view of Fujinami, and further in view of U.S. Pat. No. 6,438,162 to Boyd et al. ("Boyd"). The Applicants respectfully traverse the rejections.

Claims 6-10 are dependent on claim 1, and are allowable for at least the same reasons as claim 1.

Claims 6-10 recite an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a plurality of filter transfer functions for the programmable infinite impulse response filter, and a finite impulse response filter.

As discussed above, neither Koslov nor Fujinami, either alone or in combination, disclose, teach or suggest use of a **plurality** of filter transfer functions for the programmable infinite impulse response filter, much less an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a plurality of filter transfer functions for the programmable infinite impulse response filter, and a finite impulse response filter, as recited by claims 6-10.

The Office Action relies on Boyd to allegedly make up for the deficiencies in Koslov in view of Boyd to arrive at the claimed invention. The Applicants respectfully disagree.

Boyd is relied on to disclose a T1 communication path and E1 communication path (Office Action, page 4). However, Boyd fails to disclose or suggest use of either a infinite impulse response filter or a finite impulse response filter, much less an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a plurality of filter

transfer functions for the programmable infinite impulse response filter, and a finite impulse response filter, as recited by claims 6-10.

Neither Koslov, Fujinami nor Boyd, either alone or in combination, disclose, teach or suggest use of a **plurality** of filter transfer functions for the programmable infinite impulse response filter, much less an adaptive **equalizer** comprising a **programmable infinite impulse response filter**, a filter selector to select from a plurality of filter transfer functions for the programmable infinite impulse response filter, and a finite impulse response filter, as recited by claims 6-10.

For at least all the above reasons, claims 6-10 are patentable over the prior art of record. It is therefore respectfully requested that the rejections be withdrawn.

Claims 14-16, 18-24 and 26-30 over Koslov in view of Fujinami and Simmons

Claims 14-16, 18-24 and 26-30 were rejected under 35 USC 103(a) as allegedly being obvious over Koslov in view of Fujinami, and further in view of U.S. Pat. No. 6,195,414 to Simmons et al. ("Simmons"). The Applicants respectfully traverse the rejections.

Claims 14-16, 18-24 and 26-30 recite firstly filtering a received T1/E1 data signal using a infinite impulse response digital filter and adaptively adjusting an output of the infinite impulse response digital filter to accurately match an inverse response of a transmission channel used to transmit said received T1/E1 data signal.

The Examiner acknowledges that Koslov in view of Fujinami fails to disclose filtering a received T1/E1 data signal. However, the Examiner relies on Simmons to make up for the deficiencies in Koslov in view of Fujinami to arrive at the claimed invention.

Simmons is relied on to disclose a received T1/E1 data signal. However, although Simmons discloses use of an infinite impulse response filter, item 340, Simmons fails to disclose or suggest adaptively adjusting an output of an infinite impulse response digital filter.

Neither Koslov, Fujinami nor Simmons, either alone or in combination, disclose, teach or suggest firstly filtering a received T1/E1 data signal using a infinite impulse response digital filter and adaptively adjusting an output of the infinite impulse response digital filter to accurately match an inverse response of a transmission channel used to transmit said received T1/E1 data signal, as recited by claims 14-16, 18-24 and 26-30.

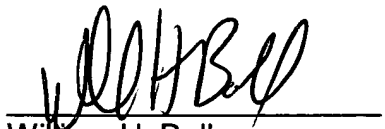
Moreover, as the Examiner acknowledges, Koslov in view of Fujinami fails to disclose filtering a received T1/E1 data signal. Modifying Koslov and Fujinami to filter a received T1/E1 data signal when a received T1/E1 data signal would provide no functional purpose to Koslov's and Fujinami's systems is **nonsensical**. Koslov's system is directed toward sampling an analog signal for further digital processing. Fujinami's system is directed toward sound processing. A received T1/E1 data signal would serve **NO** purpose either Koslov's nor Fujinami's analog systems, making any combination of Koslov, Fujinami and Simmons **nonsensical**.

For at least all the above reasons, claims 14-16, 18-24 and 26-30 are patentable over the prior art of record. It is therefore respectfully requested that the rejections be withdrawn.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,



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